

What is claimed is:

1. A compound selected from the group consisting of (+)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one and (-)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one, prodrugs thereof and pharmaceutically acceptable salts and solvates of said compounds and prodrugs.
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2. The compound of claim 1, wherein said compound is (+)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one.
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3. The compound of claim 1, wherein said compound is (-)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one.
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4. The compound of claim 1, wherein said pharmaceutically acceptable salts are selected from the group consisting of L-(+)-tartaric acid and (S)-(-)-1,1'-binaphthyl-2,2'-diyl hydrogenphosphate.
5. The compound of claim 1, wherein said compound is (+)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one, L-(+)-tartaric acid.
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6. The compound of claim 1, wherein said compound is (+)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one, (S)-(-)-1,1'-binaphthyl-2,2'-diyl hydrogenphosphate.
7. A method for the treatment of abnormal cell growth in a mammal comprising administering to said mammal an amount of a compound according to claim 1 that is effective in inhibiting farnesyl protein transferase.
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8. A method according to claim 7, wherein said abnormal cell growth is cancer.
9. A method according to claim 8, wherein said cancer comprises lung cancer, bone cancer, pancreatic cancer, skin cancer, cancer of the head or neck, cutaneous or intraocular melanoma, uterine cancer, ovarian cancer, rectal cancer, cancer of the anal region, stomach cancer, colon cancer, breast cancer, uterine cancer, carcinoma of the fallopian tubes, carcinoma of the endometrium, carcinoma of the cervix, carcinoma of the vagina, carcinoma of the vulva, Hodgkin's Disease, cancer of the esophagus, cancer of the small intestine, cancer of the endocrine system, cancer of the thyroid gland, cancer of the parathyroid gland, cancer of the adrenal gland, sarcoma of soft tissue, cancer of the urethra, cancer of the penis, prostate cancer, chronic or acute leukemia, lymphocytic lymphomas, 30
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- cancer of the bladder, cancer of the kidney or ureter, renal cell carcinoma, carcinoma of the renal pelvis, neoplasms of the central nervous system (CNS), primary CNS lymphoma, spinal

axis tumors, brain stem glioma, pituitary adenoma, or a combination of two or more of the foregoing cancers.

10. A method according to claim 8, wherein said abnormal cell growth is a benign proliferative disease.

5 11. A method according to claim 10, wherein said benign proliferative disease comprises psoriasis, benign prostatic hypertrophy, or retinosis.

12. A method for the treatment of abnormal cell growth in a mammal which comprises administering to said mammal a therapeutically effective amount of a compound according to claim 1 in combination with an anti-tumor agent selected from the group 10 consisting of mitotic inhibitors, alkylating agents, anti-metabolites, intercalating antibiotics, growth factor inhibitors, cell cycle inhibitors, enzymes, topoisomerase inhibitors, biological response modifiers, anti-hormones, and anti-androgens.

13. A method for the treatment of abnormal cell growth in a mammal comprising administering to said mammal an amount of a compound according to claim 1 that is effective 15 in treating abnormal cell growth.

14. A pharmaceutical composition for the treatment of abnormal cell growth in a mammal which comprises an amount of a compound according to claim 1 that is effective in inhibiting farnesyl protein transferase and a pharmaceutically acceptable carrier.

15. A pharmaceutical composition according to claim 1, wherein said abnormal 20 cell growth is cancer.

16. A pharmaceutical composition according to claim 15, wherein said cancer comprises lung cancer, bone cancer, pancreatic cancer, skin cancer, cancer of the head or neck, cutaneous or intraocular melanoma, uterine cancer, ovarian cancer, rectal cancer, cancer of the anal region, stomach cancer, colon cancer, breast cancer, uterine cancer, 25 carcinoma of the fallopian tubes, carcinoma of the endometrium, carcinoma of the cervix, carcinoma of the vagina, carcinoma of the vulva, Hodgkin's Disease, cancer of the esophagus, cancer of the small intestine, cancer of the endocrine system, cancer of the thyroid gland, cancer of the parathyroid gland, cancer of the adrenal gland, sarcoma of soft tissue, cancer of the urethra, cancer of the penis, prostate cancer, chronic or acute leukemia, 30 lymphocytic lymphomas, cancer of the bladder, cancer of the kidney or ureter, renal cell carcinoma, carcinoma of the renal pelvis, neoplasms of the central nervous system (CNS), primary CNS lymphoma, spinal axis tumors, brain stem glioma, pituitary adenoma, or a combination of one or more of the foregoing cancers.

17. A pharmaceutical composition according to claim 16, wherein said abnormal 35 cell growth is a benign proliferative disease.

18. A pharmaceutical composition according to claim 17, wherein said benign proliferative disease comprises psoriasis, benign prostatic hypertrophy, or retinosis.

19. A pharmaceutical composition for the treatment of abnormal cell growth in a mammal which comprises an amount of a compound according to claim 1 that is effective in treating abnormal cell growth and a pharmaceutically acceptable carrier.

5 20. A pharmaceutical composition for the treatment of abnormal cell growth in a mammal which comprises a therapeutically effective amount of a compound of claim 1 in combination with a pharmaceutically acceptable carrier and an anti-tumor agent selected from the group consisting of mitotic inhibitors, alkylating agents, anti-metabolites, intercalating antibiotics, growth factor inhibitors, cell cycle inhibitors, enzymes, topoisomerase inhibitors, biological response modifiers, anti-hormones, and anti-androgens.

10 21. A method for the treatment of an infection in a mammal, wherein said infection is facilitated by farnesyl protein transferase, which comprises administering to said mammal a therapeutically effective amount of a compound of claim 1.

22. The method of claim 21, wherein said infection is hepatitis delta virus or malaria.

15 23. A pharmaceutical composition for the treatment of an infection in a mammal, wherein said infection is facilitated by farnesyl protein transferase, which comprises a therapeutically effective amount of a compound of claim 1 and a pharmaceutically acceptable carrier.

20 24. The pharmaceutical composition of claim 23, wherein said infection is hepatitis delta virus or malaria.

25 25. A process for chromatographically resolving 6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one using continuous chromatography, the continuous chromatography comprising a liquid mobile phase comprising a least one polar solvent and a solid chiral stationary phase comprising a derivatized polysaccharide that is selected from the amylosic and cellulosic class of polysaccharides.

26. The process according to claim 25, wherein the chromatographic method employed is a selected from the group consisting of simulated moving bed chromatography, high performance liquid chromatograph and cyclojet process.

30 27. The process according to claim 26, wherein the chromatographic method is simulated moving bed chromatography.

28. The process according to claim 26, wherein the chromatographic method is high performance liquid chromatograph.

35 29. The process according to claim 28, wherein the solid chiral stationary phase is an amylosic polysaccharide.

30. The process according to claim 29, wherein the solid chiral stationary phase is selected from amylose 3, 4-substituted phenyl carbamate, cellulose 3, 5-substituted phenyl carbamate or cellulose 4-substituted benzoate.

31. The process according to claim 30, wherein the chiral stationary phase is an analog of amylose tris (3,5-substituted phenyl carbamate) wherein the substituent is 3, 5-dimethyl.

32. A process for the production of enantiomerically pure or optically enriched 6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one using simulated moving bed chromatography, the moving bed chromatography comprising a liquid mobile phase comprising a least one polar solvent and a solid chiral stationary phase comprising a derivatized polysaccharide that is selected from the amylosic and cellulosic class of polysaccharides.

33. The process of claim 32, wherein the chiral stationary phase is selected from amylose 3, 4-substituted phenyl carbamate, cellulose 3, 5-substituted phenyl carbamate or cellulose 4-substituted benzoate.

34. The process of claim 33, wherein the chiral stationary phase is an analog of amylose tris (3,5-substituted phenyl carbamate) wherein the substituent is 3, 5-dimethyl.

35. The process of claim 33, wherein the chiral stationary phase is a cellulose 3, 5-substituted phenyl carbamate or cellulose 4-substituted benzoate polysaccharide analog.

36. The process of claim 33, wherein the mobile phase comprises a solvent that is selected from heptane, hexane, isopropanol, ethanol, methanol, methyl acetate, acetonitrile, methylene chloride, ethyl acetate and/or mixtures thereof.

37. The process of claim 36, wherein the mobile phase is selected from heptane and ethanol or isopropanol and/or a mixture of methanol and ethanol with or without heptane.

38. The process of claim 25, wherein the polysaccharide derivative is immobilized on silica gel, zirconium, alumina, ceramics and other silicas.

39. The process of claim 25, using an amylose 3,4-substituted phenyl carbamate derivative polysaccharide analog with a mobile phase of a mixture of heptane and ethanol or methanol and ethanol.

40. The process of claim 35, using an amylose tris (3,5-substituted phenyl carbamate) with a mobile phase of a mixture of heptane and ethanol.

41. The process of claim 36, using an amylose tris (3,5-substituted phenyl carbamate) with a mobile phase of mixture of ethanol and methanol wherein the percentage of ethanol and methanol are 1:1 (v/v).

42. The process of claim 25, wherein retention times are increased or decreased by varying the mobile phase components.

43. The process of claim 25, wherein said separation affords at least one of the enantiomers a recovery of greater than or equal to 90%.
44. The process of claim 25, using a temperature range of about 5 to 45°C.
45. The process of claim 44, using a temperature range of about 20 to 40°C.
- 5 46. The process of claim 25, wherein the separation factor  $\alpha$  is about 1.2 to 5.0
47. The process of claim 46, wherein using a temperature of about 25°C takes advantage of increased solubility of 6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one in the mobile phase.
- 10 48. A process for preparing (+)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one, L-(+)-tartaric acid comprising treating 6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one with L-(+)-tartaric acid.
- 15 49. The process of claim 48, wherein said process is carried out in a mixture of propanol and water.
50. The process of claim 49, wherein optically enriched (+)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one, L-(+)-tartrate seed is added to the mixture.
- 20 51. The process of claim 50, wherein said mixture is cooled and crystallized.
52. The process of claim 49, wherein said propanol is 2-propanol.
53. A process for preparing (+)-6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one, (S)-(-)-1,1'-binaphthyl-2,2'-diyl hydrogenphosphate comprising treating 6-[(4-chloro-phenyl)-hydroxy-(3-methyl-3H-imidazol-4-yl)-methyl]-4-[3-(3-hydroxy-3-methyl-but-1-ynyl)-phenyl]-1-methyl-1H-quinolin-2-one with (S)-(-)-1,1'-binaphthyl-2,2'-diyl hydrogenphosphate.
- 25 54. The process of claim 53, wherein said process is carried out in a mixture of acetone and ethyl acetate.
55. The process of claim 54, wherein solids were filtered and dried *in vacuo*.
- 30 56. The process of claim 55, wherein said dried solids are recombined with acetone and ethyl acetate.
57. The process of claim 56, wherein said mixture is stirred for 1 to 24 hours.
58. The process of claim 57, wherein said mixture is filtered to isolate solids.
59. The process of claim 58, wherein said solids are dried *in vacuo*.